## Work Order ID 95538

Quality Control

\*95538\*

Page 1

January-11-13 8:36:16 AM Item ID: D3891-042 Accept \*N900040100\* Setup Start **Revision ID:** Panel, Fwd RH Item Name: **Start Date:** 1/11/13 Start Qty: 4.00 **Cust Item ID:** Required Date: 1/25/13 Req'd Qty: 4.00 **Customer:** Reference: Run Process Plan: MUJ Date: 13-01-11 Tooling: Approvals: Date: Stop QC: \_\_\_\_\_ Date: \_\_\_\_ SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Reject Reject Accept Insp. Work Center ID Description **Run Hours** Code Qty **Qty** Number Stamp **Draw Nbr Revision Nbr** D3891 Α 100 0.00 \*100\* 1313-1-27 Waterjet 0.00 Memo FLOW CNC Waterjet 1-Cut as per Dwg D3891-2 Dwg Rev: Prog Rev: 2-Deburr if necessary 110 QC2- Inspect parts off machine FAI/FAIB 0.00 \*110\* B131-27 QC 0.00 Memo

			*~
	•	DQA: [	Date:
		WORK ORDER MON CONFORMANCE AURDATE	
NCR:	Yes / No	o WORK ORDER NON-CONFORMANCE / UPDATE	

									QA Closed:	Date	<u>:</u>		
Work Orde	er:				DISPOSITION	_	AGAINST DEPARTMENT/PROCESS						
Part N	No				Rework Scrap		Skid-tube Machining	Crosstube Small Fab	4	Water Jet d. Eng. Coor.	Engineering Quality		
NCR N	lo				Use-as-is Work Order Update	Ther	moforming Large Fab	Finishing Composite	Rec/Stoi	e/Packaging Supplier	Other		
Root				Descri	ption of work order update	Initial	Ac	tion	Sign &				
Cause	Date	Step	Qty	•	or Non-conformance	Chief Eng	Desc	ription	Date	Verification	QC Inspector		
Doc/Data													
Equip/Tooling													
Operator													
Material													
Setup													
Other										-			
Process													
Supplier													
Training													
Unapproved						<u> </u>					1		
					<del></del>	AULT CAT	EGCIRY						
Landii	ng Gear				General			_	۱	Г	¬。		
	Bending				Bend	Grain	T.	<u> </u>	Ovalized		Pressure/Forced		
ŀ		Not Conce	ntric to t	J/S	BOM/Route	Hardw		<u> </u>	Over/Under	<del> -</del>	Temperature/Cure		
	Crucks	/Crimped		-	Broken/Damaged	<b>—</b>	tion Incomplete	/Unclose	Part Incorre	<b>–</b>	Weld		
	Cuffs	/Crimpeu		<u> </u>	Burrs Contamination	<del>}</del>	ctions Incomplete/ cenance	Onclear	Part Lost/Mi	122111B [	Wrong Stock Pulled		
	Heat Tre	nat		-	Countersink	Mislat			Positioned V	Vrong			
ł	<b>⊣</b>	eat on Strip in	Tuhe		Cut Too Short	Misrea		<u> </u>	Power Loss/		Other		
ł	Ripples	•	TUDE	<b>—</b>	Drill Holes	Offset		L_	J. OWEL COSS/	Juige	,		
	<b>─</b> ' ' '	Waves in E	ytrusion	, ⊢	Drawing	$\vdash$	Calibration						
				·	Finish	$\boldsymbol{\vdash}$	Out of Sequence						
Turning Sequence Wave/Twist in Tube					Folio	$\vdash$	Outside Dimensions						

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

January-11-13 8:36:16 AM

Item ID: D3891-042

Accept

\*N900040100\*

Setup Start

Item Name: **Start Date:** 

Revision ID:

1/11/13

Panel, Fwd RH

Start Qty: 4.00 **Req'd Qty:** 4.00

Date:\_\_\_\_

Cust Item ID:

**Customer:** 

Tool ID

Reference:

Approvals:

Required Date: 1/25/13

Process Plan:

Date:

Tooling:

Date:

Run Start

SPC (Y/N):

Date:

Stop

Sequence ID/ **Work Center ID**  Operation Description

QC8- Inspect parts - second check

Set Up/ Run Hours

Tool # Plan Code

Accept Qty

Reject Qty

Reject Number

Insp. Stamp

\*120\*

Memo

Pick Kit

Quality Control

130

120

QC

\*130\*

Small Fab

Small Fab

140

\*140\* Packaging

Packaging

Memo Deburr if necessary

Memo

0.00

0.00

											DQA:	Date:	
NCR:	Yes ,	/ No				WORK ORDER NON-	COI	VFOR	MANCE / UP	DATE	OA Classid	Data.	
<del></del>						<u> </u>	-				QA Closed:	Date:	
Work Orde	er:				:	DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part 1	_					Rework Scrap			Skid-tube Machining	Crosstube Small Fab	4	Water Jet od. Eng. Coor.	Engineering Quality
NCR I	No	_				Use-as-is Work Order Update		Thern	noforming	Finishing Composite	Rec/Sto	re/Packaging Supplier	Other
Root					Descri	ption of work order update		nitial	Ac	tion	Sign &		
Cause		Date	Step	Qty	•	or Non-conformance	Ch	ief Eng	Desc	cription	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling	П											*	
Operator	П											•	
Material	П												
Setup	П												
Other	П												1
Process	П												
Supplier	П												
Training	П												
Unapproved	П												
			•	•		F	AUL	T CATE	GORY		<del></del>	1	
Landi	ng Ge	ar				General							
1	$\overline{}$	ending				Bend		Grain			Ovalized		Pressure/Forced
	$\vdash$	_	ot Concer	ntric to (	o/s	BOM/Route		Hardwa	re:		Over/Under	tolerance	Temperature/Cure

Inspection Incomplete

Maintenance

Out of Calibration
Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Instructions Incomplete/Unclear

Part Incorrect

Part Moved

Part Lost/Missing

Positioned Wrong

Power Loss/Surge

Weld

Other

Wrong Stock Pulled

Broken/Damaged

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Burrs

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Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Cracks

Cuffs

Heat Treat

Crushed/Crimped.

Inspection Strip in Tube

Torque Waves in Extrusion

January-11-13 8:36:16 AM Item ID: D3891-042 Accept \*N900040100\* Setup Start **Revision ID:** Item Name: Panel, Fwd RH **Start Date:** 1/11/13 Start Oty: 4.00 **Cust Item ID:** Required Date: 1/25/13 Req'd Qty: 4.00 **Customer:** Reference: Run Process Plan: \_\_\_\_ Date: \_\_\_\_ Approvals: **Tooling:** Date: Stop QC: \_\_\_\_\_ Date: \_\_\_\_ **SPC (Y/N):** Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Accept Reject Reject Insp. Wow Center ID **Description** Run Hours Qty Code Qty Number Stamp 150 0.00 \*150\* Small Fab 0.00Memo Small Fab 1- Bond gasket to smooth side of panel as per dwg A/R 3M 1300 adhesive Batch: 12 4 160 QC5- Inspect part completeness to step on W/O \*160\* Memo Quality Control Identify as per dwg & Stock Location: 57101 170 \*170\* PPP 95331 Packaging Memo Packaging

( NCR: )	Yes	/	No

## WORK ORDER NON-CONFORMANCE / UPDATE

DQA: XW	-Date:				ì	•
of Cloudy (M)	Data	31	orl	03		

$\overline{}$						QA Closed. Date.							
Work Order	: 9ª	353	3 <i>8</i>		DISPOSITION	,			AGAINST E	DEPARTMEN	T/PROCESS		
Part No	o. <u>D3</u>	891-	-04	12	Rework Scrap Use-as-is	Scrap Machining Small Fa			Crosstube Small Fab Finishing	Prod. Eng. Coor. Quality			
NCR No	o. <u>13</u>	150	95	<u> </u>	Work Order Update			Large Fab	Composite		Supplier		
Root				Descri	ption of work order update	1	nitial	Act	tion	Sign &			
Cause	Date	Step	Qty	(	or Non-conformance	Ch	ief Eng	Descr	Piption	Date	Verification	QC Inspector	
Doc/Data Equip/Tooling Operator	Bloilse	150	\	TRy to		U 2	0131	replace	g stat	13/01/3,	( ) (S) (S) (S) (S) (S) (S) (S) (S) (S)	1000	
Setup				1. 1/2/2-		160	• ,	12			13-131	9>2042	
Other				0.0				0 1	1			7/2/21	
Process	6			RC: Pro	٠ ١٥٥٥			iem ale	stoyed			(1)21951	
Supplier				3 M	Aphesive work very			Paul des	2600				
Training				fast.	ADhesive work very no Room For Space				1				
Unapproved			<u> </u>			<u> </u>					<u>l</u>	<u> </u>	
					<del></del>	AUL	T CATE	GORY	- <del>(</del> )	· <u>-</u>			
Landing					General				(1) 0 1	<del>-</del> 1 .	<u></u>	<b>-</b>	
-	Bending				Bend	$\vdash$	Grain	/ #\		Ovalized		Pressure/Forced	
) <u> </u>	Centre No	ot Concer	ntric to	O/S	BOM/Route	$\vdash$	Hardwa	l l		_	r tolerance	Temperature/Cure	
	Cracks	5.1		-	Broken/Damaged	-		on ncomplete		Part Incorr		Weld	
} -	Crushed/0	rimpea.		-	Burrs	-	Instruct Mainte	ions rocomplete/	onclear	Part Lost/N		Wrong Stock Pulled	
-	Heat Trea			$\vdash$	Countarink	-	Mislabe		-	Part Move			
-	Inspection		Tubo	-	Countersink Cut Too Short	$\vdash$	Misread		}	Positioned Power Loss		Other	
-	Ripples in	•	iuse		Drill Holes	-	Offset	4	L .	rower Loss	yourge	Joure	
	Torque W		xtrusio	, ⊢	Drawing	$\vdash$		Calibration					
-	Turning Se			'' <del> -</del>	Finish	-		Sequence				······································	
	Wave/Tw	•			Folio	-		Dimensions					
	1 ,				1								

Set Up/

0.00

0.00

Run Hours

Tool ID

Tool # Plan

Code

Sequence ID/

\*1 AN\*

Quality Control

180

Work Center ID

Operation

Description

QC21- Final Inspection - Work Order Release

Memo

NB02-le

Reject

Insp.

Number Stamp

Reject

Qty

Accept

Qty

Page 4

												DQA:	Date	e: _	
NCR:	Yes	/ No				WORK ORDER NON-C	COI	NFORM	MANCE / UP	DATE					
												QA Closed:	Dat	e:	
Work Ord	er:					DISPOSITION				AGAINST	DE	PARTMENT	PROCESS		
Part I	No.					Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite		4	Water Jet d. Eng. Coor. e/Packaging Supplier		Engineering Quality Other
Root				!	Descri	ption of work order update		Initial	Ac	tion		Sign &			
Cause		Date	Step	Qty		or Non-conformance	Ch	nief Eng	Desc	ription		Date	Verification		QC Inspector
Doc/Data															
Equip/Tooling														1	
Operator							ŀ							1	
Material															
Setup															
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Process															
Supplier									•	•					
Training															
Unapproved															
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Landi	ng G	Gear				General		_				_	_		
		Bending				Bend		Grain		-		Ovalized			Pressure/Forced
		Centre No	t Concer	ntric to	o/s	BOM/Route		Hardwa	re			Over/Under	tolerance		Temperature/Cure
		Cracks				Broken/Damaged		Inspecti	or: Incomplete			Part Incorrec	t [		Weld
		Crushed/0	Crimped.			Burrs		Instruct	ions Incomplete/	Unclear		Part Lost/Mi	ssing	$\neg$	Wrong Stock Pulled
		Cuffs				Contamination		Mainte	nance			Part Moved	, <b>L</b>		
		Heat Trea	t			Countersink		Mislabe	led			Positioned W	/rong		

Misread

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Other

Power Loss/Surge

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing

Finish

Folio

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## **Picklist Print**

January-11-13 8:36:20 AM

Work Order ID: 95538

D3891-042

Parent Item Name: Panel, Fwd RH

\*95538\*

\*D3891-042\*

**Start Date:** 1/11/13

Required Date: 1/25/13

Start Qty: 4.00

Required Qty: 4.00

Comments:

Parent Item:

IPP RevA: New issue DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MLEXS.125-F60029-04		Purchased	No			100	sf	335.0613	3.8097	16.04084		·— · <del>- · · · · · · · · · · · · · · · · · </del>	<del>-</del>
*MI FXS 1 GE PLASTICS LEXAN SH		N29-N4*	•						**		ાઉત્રુ-	-1-27	
				<u>Location</u> MAT019		Loc (	0613	Loc Code	_	-0.0		0	
D3891-4		Manufactured	No		121803	335.0 140	613 Each	2.0000	1 12	11803 4	1		
*D3891-47	<b>k</b>								**		FF	= 13-	01-3
				Location		Log	) for	Los Codo					

<b>Location</b>		Loc Qty	Loc Code	7
$_{\rm GA}$ $9$	5539 380	2		
69	9380 - /	1		
92	2102	1		
.~				

NCR:	Yes /	No				WORK ORDER NON-O	CON	NFORM	MANCE / UPI	DATE	•		
											QA Closed:	Dat	e:
Work Orde	er:					DISPOSITION				AGAINST DE	PARTMENT	PROCESS	
Part N						Rework Scrap Use-as-is Work Order Update		ſ	Skid-tube  Machining  noforming  Large Fab	Crosstube Small Fab Finishing Composite		Water Jet d. Eng. Coor. e/Packaging Supplier	Engineering Quality Other
Root					Descri	ption of work order update	- 1	nitial	Act	ion	Sign &		
Cause		Date	Step	Qty	(	or Non-conformance	Ch	ief Eng	Descr	iption	Date	Verification	QC Inspector
Doc/Data	Ш												
Equip/Tooling						,							
Operator	Ш										i		
Material				ľ	!								
Setup										•			
Other			'										
Process													
Supplier	Ш												
Training	Щ					•							
Unapproved							<u> </u>						
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Landi	ng Gea					General		ı	•		1	r	
	_	nding			_	Bend	$\vdash$	Grain			Ovalized	1	Pressure/Forced
	—		t Concer	ntric to	o/s	BOM/Route	$\vdash$	Hardwa			Over/Under		Temperature/Cure
	⊢	acks			ļ	Broken/Damaged	_	· '	on Incomplete		Part Incorred		Weld
	_		Crimped.		_	Burrs	-		ions Incomplete/U	Jnclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	∐ Cu					Contamination	+	Mainte		<u> </u>	Part Moved		
	$\vdash$	at Trea				Countersink	$\vdash$	Mislabe			Positioned V		
	_		Strip in	Tube		Cut Too Short	_	Misread	i		Power Loss/	Surge	Other
		ples in				Drill Holes		Offset					
	То	rque W	aves in E	xtrusio	n 📙	Drawing .		Out of 0	Calibration				

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

DART AEROSPACE LTD	Work Order:	95538
Description: Panel	Part Number:	D3891-2
Inspection Dwg: D3891 Rev: A		Page 1 of 1

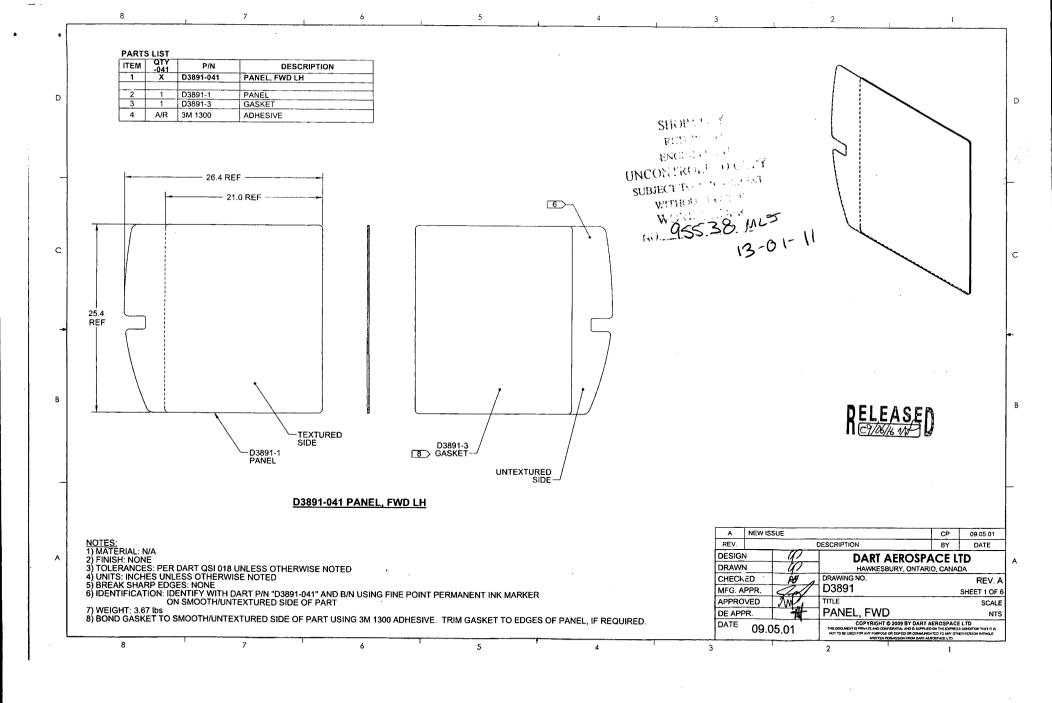
## FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

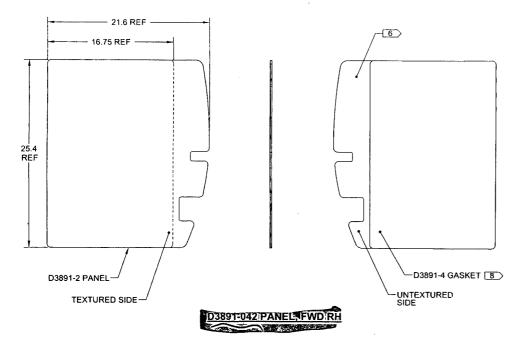
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
21.6	+/-0.100	71.6	6		T 1861	
19.7	+/-0.100	19.7	2		T	
2.53	+/-0.030	2.53	b		7	·
1.25	+/-0.030	1.35	C		7	
11.70	+/-0.030	11.76	4		7	
3.25	+/-0.030	3.25	V2		7	•
3.63	+/-0.030	3,63	6		7	· .
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17.7	+/-0.100	17.7	,		1	` .
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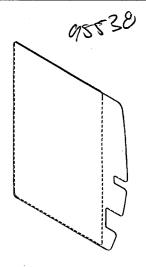
Measured by: B	Audited by: Sm)	Prototype Approval:	N/A
Date: (3-1-77	Date: 13 2 JS	Date:	N/A

Rev	Date	Change		Revised/by	Approved
Α	09.07.29	New Issue	P/O D3891-042	KJ 🕏	KV.



**PARTS LIST** QTY ITEM DESCRIPTION D3891-042 PANEL, FWD RH X D3891-2 PANEL 1 D3891-4 GASKET 4 A/R 3M 1300 ADHESIVE





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С

В

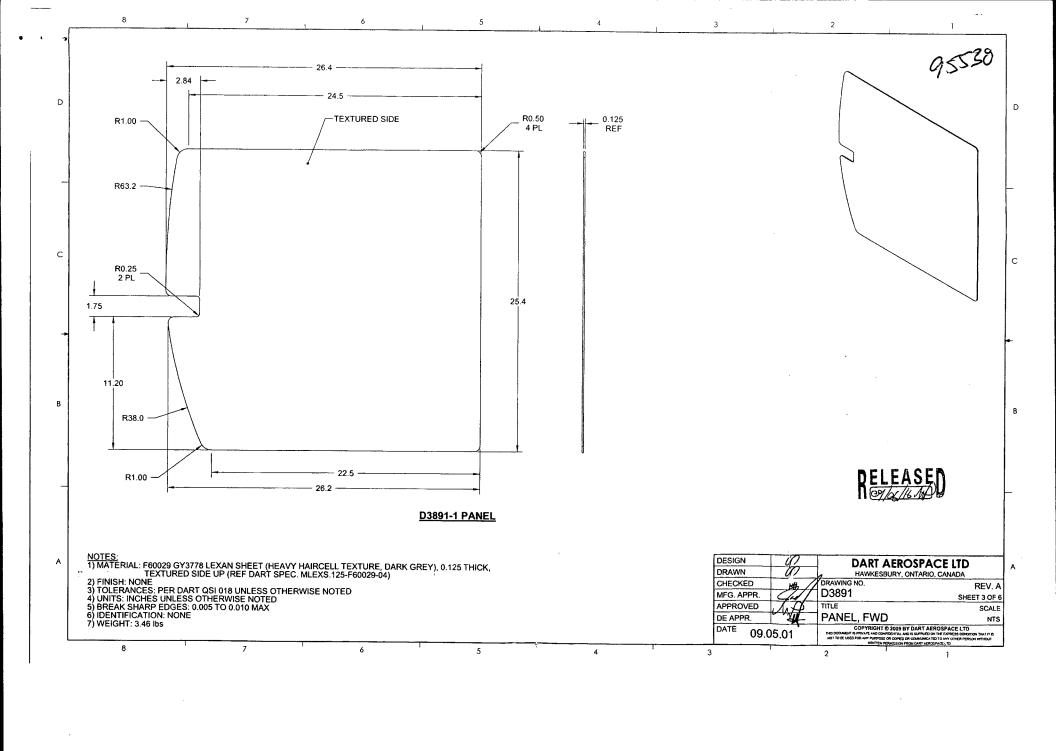
NOTES:
1) MATERIAL: N/A
2) FINISH: NONE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERW. SE NOTED
5) BREAK SHARP EDGES: NONE
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3891-042" AND B/N USING FINE POINT PERMANENT INK MARKER ON SMOOTH/UNTEXTURED SIDE OF PART

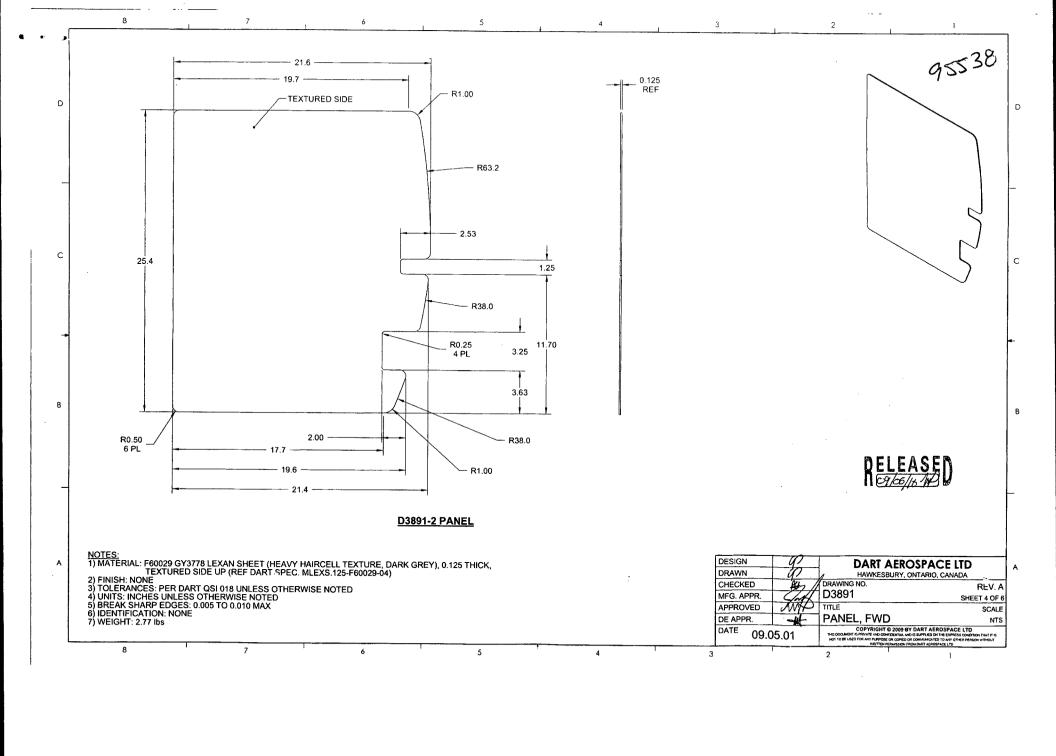
ON SMOOTH/UNTEXTURED SIDE OF PART USING 3M 1300 ADHESIVE. TRIM GASKET TO EDGES 7) WEIGHT: 2.93 lbs
8) BOND GASKET TO SMOOTH/UNTEXTURED SIDE OF PART USING 3M 1300 ADHESIVE. TRIM GASKET TO EDGES OF PANEL, IF REQUIRED.

DESIGN	a	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	9		
CHECKED	Pot 1	DRAWING NO.	REV: A
MFG. APPR.	July	D3891	SHEET 2 OF 6
APPROVED	ANA	TITLE	SCALE
DE APPR.	14-	PANEL, FWD	NTS
DATE 09.05.01		COPYRIGHT © 2009 BY DAR THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPP NOT TO BE USED FOR ANY PURPOSE OF COPIED OR COMM	PUED ON THE EXPRESS CONDITION THAT IT IS

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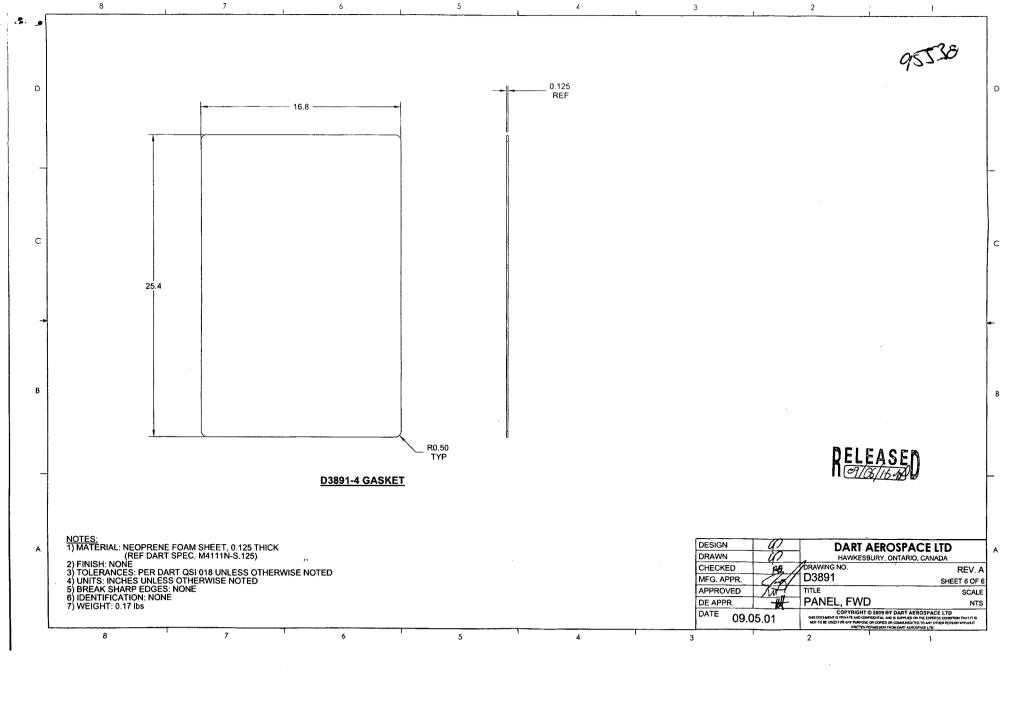
8





0.125 D REF С 25.4 R0.50 **D3891-3 GASKET** NOTES:
1) MATERIAL: NEOPRENE FOAM SHEET, 0.125 THICK
(REF DART SPEC. M4111N-S.125)
2) FINISH: NONE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: NONE
6) IDENTIFICATION: NONE
7) WEIGHT: 0.21 lbs DESIGN DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWN L. LAWING NO. CHECKED REV. A D3891 MFG. APPR. SHEET 5 OF 6 TITLE APPROVED SCALE PANEL, FWD DE APPR. NTS COPYRIGHT © 2009 BY DART AEROSPACE LTD

PHS DOCUMENT OF PRIVATE AND CONTRIBUTION, AND IS SUPPLED ON THE EXPRESS CONCINCION THAT IT IS
NOT TO BE USED FOR ANY PURPOSE ON COMMENCIATE TO ANY OTHER PRISON WITHOUT
WARTEN PRIVACES ON PRIVALENT ARRESTINGS. LTD. DATE 09.05.01 ´ 2



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